

ZOOLOGICAL SOCIETY.

May 11, 1847.—William Spence, Esq., F.R.S., in the Chair.

ON THE GENERA OF THE FAMILY CHITONIDÆ (continued).

By J. E. GRAY, Esq., F.R.S., F.Z.S. ETC.

1. CHITON, *Linn.* (part), *Guilding, Z. J.* v. 27; *Swainson*; *Gray, Syn.*

Lepidopleurus, "*Leach MSS.*," *Risso, Eur. Merid.* 267. *Chiton*, sect. A. 1. *Blainv.* *Lepas spec.*, *Adanson.* *Corephium*, *Brown.* *Lophurus*, *Poli.* *Gymnoplax*, *Gray.*

* *Scales of the margin moderate, smooth, polished; valves thickish.*

Ch. striatus, *Barnes.* *Ch. olivaceus*, *Frembly, Sow. C. Ill.* f. 3, 41. *Chiloe.*

Ch. Cumingii, *Frembly, Sow. C. Ill.* f. 32, 51. *Chili.*

Ch. albolineatus, *Sow. C. Ill.* f. 39. *Mexico.*

Ch. squamosus, *Linn.* *Ch. bistriatus*, *Wood.* *Ch. obscurus*, *Sow. West Indies.*

Ch. sulcatus, *Wood, Sow. C. Ill.* f. 12.

Ch. granosus, *Frembly.* *Chili.*

Ch. Barnesii, *Gray.* *Coquimbo.*

Ch. glaucus, *Gray, Spic. Zool.* = *Ch. viridis*, *Quoy.*

Ch. granulatus, *Frembly.* *Conception.*

Ch. Siculus, *Gray.* *Ch. Polii*, *Desh.* *Sicily.*

Ch. lyratus, *Sow. C. Ill.* f. 126.

Ch. foveolatus, *Sow. C. Ill.* f. 60.

Ch. excavatus, *Gray, Sow. C. Ill.* f. 131.

Ch. fasciatus, *Wood, Sow. C. Ill.* f. 153.

Ch. australis, *Sow. C. Ill.* f. 46.

Ch. Stokesii, *Brod., Sow. C. Ill.* f. 24.

Ch. virgulatus, *Sow. C. Ill.* f. 132.

Ch. patulus, *Sow. C. Ill.* f. 134.

Ch. marmoratus, *Gmelin, Sow. C. Ill.* f. 148. *West Indies.*

Ch. evanidus, *Sow. C. Ill.* f. 139.

Ch. articulatus, *Sow. C. Ill.* f. 18. *California.*

Ch. lævigatus, *Sow. C. Ill.* f. 18*. *California.*

Ch. Goodallii, *Sow. C. Ill.* f. 50. *Galapagos.*

** *Scales of the mantle small, smooth, polished.*

Ch. Bowenii, *King, Sow. C. Ill.* f. 37. *Magellan Str.*

*** *Scales of the margin transversely grooved; valve rounded, not keeled, thin.*

This section forms a very natural group.

Ch. textilis, *Gray, Spic. Zool.* = *Ch. longicymba*, *Blainv., Quoy.*

Ch. Indicus, *Sow. C. Ill.* f. 55. *Ch. Solea*, *Sow. C. Ill.* f. 61. *Cape of Good Hope.*

Ch. Magdaliensis, *Hinds.*

**** *Scales of the margin lanceolate, elongate, erect, closely pressed.*

Ch. lævis, *Mont.* = *Ch. corallinus*, *Risso.*

2. TONICIA, Gray, *Syn.* Chiton, *Risso, E. M.* 267.

* Valves broad, transverse.

T. atrata. Ch. atratus, *Sow. C. Illust.* f. 57, 58. Falkland Islands.
 T. elegans. Ch. elegans, *Frembly, Sow. C. Illust.* f. 73, 74. Ch. Chiloesis, *Sow.* Ch. lineolatus, *Frembly.* Ch. graniferus, *Sow.* Ch. Sparius, *Sow.* Conception Bay.

T. rubra. Ch. ruber, *Linn.* Ch. marmoreus, *O. Fab.* Ch. latus, *Lowe.* Ch. fulminatus, *Couth.*

T. fulva. Ch. fulvus, *Wood, Sow. C. Ill.* f. 53. Cadiz.

T. lineata. Ch. lineatus, *Wood, Sow. C. Ill.* f. 77.

T. Swainsonii, *Sow. C. Ill.* f. 5. Peru.

T. cerasina.

T. lævigata. Ch. lævigatus, *Flem.*

T. lyrata.

T. Grayii. Ch. Grayii, *Sow. C. Illust.* f. 8—16. Peru.

T. castanea. Ch. castaneus, *Wood, Sow. C. Illust.* f. 114, 115, 116. Cape of Good Hope.

T. fastigiata. Ch. fastigiatus, *Gray, Sow. C. Illust.* f. 11. California.

** Valves moderate, subcordate, rounded, and far apart on the sides; lobes of insertion wide; mantle broad.

T. disjuncta. Ch. disjunctus, *Frembly, Zool. Journ.* t. 77. f. 5, forms the passage to the Chitons, which have only a small part of the valves exposed.

3. ACANTHOPLEURA, *Guild. Z. J.* v. 27; *Gray, Syn.*

Canthapleura, *Swains.*

This genus gradually passes to *Onithochiton*.

* The plate of insertion of the hinder valve well-developed, regular; valves thin; lateral area distinct; margin bristly.

A. Peruviana. Ch. Peruvianus, *Lam., Sow. C. Ill.* f. 44. Peru.

A. bicolor. Ch. bicolor, *Adams.* West Indies.

A. Hennahi. Ch. Hennahi, *Gray, Sow. C. Ill.* f. 1 & 33.

A. Watsonii. Ch. Watsonii, *Sow. C. Ill.* f. 81, 82, 130 = Ch. castaneus, *Quoy.*

** The plate of insertion of the hinder valve narrow, rather irregular.

† Margin bristly; lateral area distinct.

A. nobilis, *Gray.* New Zealand.

†† Margin spinose or spinulose; lateral area indistinct.

A. picea. Ch. piceus, *Sow. C. Ill.* f. 147. West Indies.

A. spinigera. Ch. spinigerus, *Sow. Conch. Ill.* f. 68. Peru.

A. Owenii, *Gray.* West coast of Africa.

A. spinosa. Ch. spinosus, *Brug., Sow. C. Illust.* f. 151. Australia.

A. brevispinosa. Ch. brevispinosus, *Sow. C. Illust.* f. 136. Island of Johanna.

A. magnifica. Ch. magnificus, *Gray, Sow. C. Illust.* f. 52.

††† *Margin smooth?*; *lateral area very distinct.*

A. ? *gigas*. Ch. *gigas*, *Gmel.* Cape of Good Hope.

A. ? *truncata*. Philippines.

4. SCHIZOCHITON.

Valves elongate, subcordate, narrow; lateral area short, distinctly defined; the hinder valves large, with a subposterior superior apex and a deep notch on its hinder lower edges, and the plate of insertion small, with a few oblique notches, scarcely pectinated. Mantle broad, covered above with small chaff-like scales, deeply notched behind.

Schizochiton incisus. *Chiton incisus*, *Sow.* Philippines.

5. COREPHIUM.

Valves broad; wing of insertion of the anterior valve lobed and pectinated; the hinder valve oblong, with a subcentral, subposterior, not produced apex; the edge of insertion distinct, not lobed on the sides, with a single nick behind, and slightly denticulated; mantle spinose.

C. *echinatus*. *Chiton echinatus*, *Barnes*. C. *tuberculiferus*, *Sow.*
Ch. *spiniferus*, *Frembly*; *Sow. C. Illust.* f. 47, young.

6. PLAXIPHORA.

P. *Carmichaelis*. *Chiton Carmichaelis*, *Gray, Spic. Zool.* Ch. *albidus*, *Blainv.* 547. Ch. *raripilosus*, *Blainv.* 547. Ch. *costatus*, *Blainv.* 547. Ch. *biramosus*, *Quoy, Voy. Astrol.* t. 74. f. 12, 16. Ch. *setiger*, *King, Z. J.* v. 338; *Sow. Conch. Ill.* f. 17. Ch. *Fremblyi*, *Brod. P. Z. S.* 1832, 28; *Sow. Conch. Ill.* f. 2. Ch. *setosus*, *Sow., Beechey Voy.* Terra del Fuego.

See also Ch. *setosus*, *Sow. C. Ill.* f. 19?

7. ONITHOCHITON.

O. *Gaimardi*. *Chiton Gaimardi*, *Blainv.* 546.

O. *hirtosus*. *Chiton hirtosus*, *Blainv.* 546.

O. *undulatus*. Ch. *undulatus*. Van Diemen's Land.

8. ENOPLOCHITON.

E. *niger*. Ch. *niger*, *Barnes*. Ch. *Coquimbensis*, *Frembly*. Coquimbo.

The valves become very much eroded.

9. MOPALIA.

Valves broad, transverse, depressed; margin of insertion moderate; the hinder valve with a rounded lobe on the hinder edge; mantle moderately broad, bristly above, narrow behind.

* *Margin moderately wide in front.*

M. *Hindsii*. Ch. *Hindsii*. West coast of America.

M. *Simpsonii*. Ch. *Simpsonii*, *Gray*. Brit. Mus.

** *Margin very wide in front.*

M. Blainvillii. Ch. Blainvillii, *Sow. C. Ill. f. 6.* Inner Lobos Island.

10. KATHARINA.

K. tunicata. Chiton tunicatus, *Wood, Conch. ii. t. 2. f. 1; Cat. t. 1. f. 10.* Wood's specimen is now in the British Museum.

K. Douglasiæ. Ch. tunicatus, *Sow. C. Illust. f. 152.* California.

11. CRYPTOCHITON.

The gill only occupies the hinder part of the sides.

C. amiculatus. Ch. amiculatus, *Pallas, Nov. Comm. Petrop. ii. 241. t. 7. f. 26, 30; Sow. Tank. Cat. (spec. Brit. Mus.); Wood, Cat. t. 1. f. 12,* inner side of shell; *Sow. Conch. Illust. f. 80,* half-grown. Chiton Sitkensis, *Reeve's Conch. Icon. f. 55,* adult. Kurile Islands.

12. CRYPTOCONCHUS, "Blainv.," Swainson; Gray, Syn.

Body oblong, rather convex; back flattish or concave in the centre, with the tuft of spines on the upper part of the sides of the back. The gills extend about half the length of the sides.

Cryptoconchus porosus, "Blainv.," *Burrows, Elem. Conch. 190 (1815), spec. Brit. Mus.* Chiton porosus, *Burrows, E. C. t. 28; Wood, Cat. t. 1. f. 39.* Ch. Leachii, *Blainv. D. S. N. 554,* spec. Brit. Mus. Ch. monticularis, *Quoy, Voy. Astrol. t. 73. f. 30, 34, 36,* and lower fig. 7; *Sow. Conch. Illust. f. 129,* valves. New Zealand.

13. AMICULA, Gray, Syn. 1840.

Body ovate, convex; back convex; mantle bristly.

Amicula vestita. Chiton vestitus, *Sow. Zool. Journ. iv. 368; Sow. Conch. Illust. f. 128.* Ch. Emersonii, *Couthoy.* Atlantic Ocean.

14. ACANTHOCHITES, Leach, B.M.; Gray, Syn.

Acanthochites, "Leach." Acanthochitus, *Risso. Phakellopleura, Guild., Swainson.* Chitonellus (part.), *Guild. Acanthochiton, Herrm.*

Body oblong, elongate, rather depressed; mantle spinulose; tuft of spines generally large; gill extending about two-thirds the length of the sides.

M. De Blainville says, the valves of this genus are always without any trace of lateral area (*D. S. N. xxxvi. 537*), but this must have arisen from his only having examined worn specimens.

A. fascicularis. Ch. fasc., *Linn. C. echinites, Blainv., Sow. Conch. Ill. f. 87—93.*

A. Garnoti. Ch. Garnoti, *Blainv. D. S. N. 552?*; *Quoy, Voy. Astrol. t. 73. f. 9, 14.* Asc. Zelandica, *Quoy, Voy. Astrol. t. 73. f. 5.*

A. Hookeri, *Gray, Dieffenbach, 262.*

A. polychetus. Ch. polychetus, *Blainv. 553.*

A. roseus. Ch. roseus, *Blainv. 553.*

A. Lesueurii. Ch. Lesueurii, *Blainv. 553.*

A. scaber. Ch. scaber, *Blainv. 553.*

A. violaceus. Ch. *violaceus*, *Quoy, Voy. Astrol.* 73. f. 13, 16, 17, 20; not *Sow. Ill.* f. 133.

A. hastatus. Ch. *hastatus*, *Sow. C. Ill.* f. 127.

A. hirundiniformis. Ch. *hirundiniformis*, *Sow. C. Ill.* f. 148.

A. strigatus. *Chitonellus latus*, *Guild. Z. Journ.* v. 28. *Chitonellus strigatus*, *Sow. C. Ill.*

15. CHITONELLUS, *Lam.*

Chitonella, *Desh.* *Cryptoconchus*, "*Blainv.*," *Burrows.* *Cryptoplax*, *Blainv.* *Chitoniscus*, *Herrm.*

Body elongate, compressed, convex above; mantle covered with crowded spines; the exposed part of the front valves oblong, square, broad, often worn; of the hinder ones narrow, lanceolate; the plates of insertion large, produced in front, and scarcely notched on either side. The gills occupy the hinder third of the sides.

M. De Blainville inserts Lamarck's species of *Chitonelli* with the spiny Chitons in section D., and in section E. he redescribes them, from specimens in spirits in the British Museum.

Chitonellus lævis, *Lam.* *Chiton vermiformis*, *Blainv. D. S. N.* xxxvi. 553. *Oscab. fascie*, *Quoy, Voy. Astrol.* t. 73. f. 21, 29. *Cryptoconchus larvæformis*, "*Blainv.*," *Burrows, Elem. Conch.* 190. t. 28. f. 2, 4; *Wood, Cat.* t. 1. f. 40. Philippines.

Chitonellus striatus, *Lam.*; *Sow. Conch. Illust.* f. 62? *Oscab. oculæ*, *Quoy, Voy. Astrol.* t. 73. f. 37, 38. Australia.

The fossil Chitons of the older strata described by Munster, more lately by Ryckholt, *Bull. Acad. Brux.* 1845, xii. 36. t. 1—4, appear to belong to a peculiar genus, which may be called *Gryphochiton*, most nearly allied to *Chitonellus*.

I have described some peculiarities in the development, disposition and structure of the valves of the Chitons in a paper which will be read at the Royal Society on the 16th of June next.

MISCELLANEOUS.

Notice of the capture of Sylvia Turdoides (Meyer) in Britain.

By JOHN HANCOCK, Esq.

A MALE specimen of this fine Warbler was shot, three or four miles west of Newcastle, near to the village of Swalwell, by Mr. Thomas Robson of that place, on the 28th of last May. The attention of this gentleman, who is perfectly familiar with the song of all our summer visitants, was arrested by a note which he had not before heard; and after some search he succeeded in getting a sight of the bird. It was concealed in the thickest part of a garden hedge close to an extensive mill-dam, which is bordered with willows, reeds and other aquatic plants. It would scarcely leave its retreat, and when it did so never flew far, and always kept close to the herbage. Its habits resembled those of the Reed Fauvette, being continually in motion, occasionally hanging with the body downwards or clinging to the branches and stretching forwards to take its prey.